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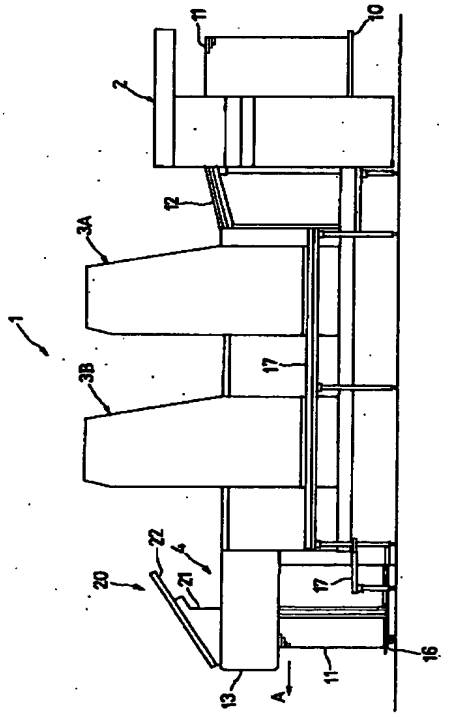
Ｆターム(参考)　2C250 EA02 EA03 EA12 EA23 EB37

(54)【発明の名称】枚葉輪転印刷機

(57)【要約】
【課題】　新たな設置場所を不要とするとともに、製造コストの低減を図り、かつ作業性の向上を図る。
【解決手段】　排紙装置４の上部に印刷機１のインキ装置、給水装置、見当装置を制御する印刷品質制御装置２０を設ける。



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【特許請求の範囲】

【請求項１】　シート状物を給紙する給紙部と、この給紙部から給紙された前記シート状物に印刷する印刷部と、この印刷部で印刷された前記シート状物を排紙する排紙部とを備えた枚葉輪転印刷機において、前記シート状物に印刷されるインキの量を調整するインキ量調整装置を前記排紙部の上側に設けたことを特徴とする枚葉輪転印刷機。

【請求項２】　請求項１記載の枚葉輪転印刷機において、前記インキ量調整装置に、印刷されたシート状物用の載置部を設けたことを特徴とする枚葉輪転印刷機。

【発明の詳細な説明】

【０００１】

【発明の属する技術分野】本発明は、印刷された紙と刷見本とを比較しながら印刷部のインキの量を調整するインキ量調整装置を備えた枚葉輪転印刷機に関する。

【０００２】

【従来の技術】一般に、この種の枚葉輪転印刷機においては、本刷りに先立ち刷見本に基づいて各色のインキ出し量等を調整する試刷りが行われる。このようなインキ出し量を調整するインキ量調整装置を備えた枚葉輪転印刷機としては、実公平１－３６６１１号公報に開示されたものがある。ここに開示された枚葉輪転印刷機には、刷見本と印刷された紙とを比較した上で、各セクション毎に分割したインキブレードを遠隔操作によって移動させ、インキ出し量を調整する制御台が備えられている。すなわち、この制御台の上面には、印刷機のインキ装置におけるインキ出し量を各セクション毎に表示する表示部と、インキ装置などを操作する押釦類を備えた操作部とが設けられている。そして、印刷された印刷された紙を所定枚数毎に排紙部から抜き取り、これを刷見本と比較しながら制御台の操作部の押釦を操作して、インキ出し量を調整していた。

【０００３】

【発明が解決しようとする課題】しかしながら、上述した従来の枚葉輪転印刷機においては、制御台が印刷機本体とは別体に独立して設けられた構造となっているため、制御台を設置する場所が新たに必要になるとともに製造コストも増大する。また、制御台が印刷機本体と離間しているために、作業者が印刷機の排紙装置と制御台との間を行き来しなければならず作業性が悪い。また、印刷機本体と制御台との間を結ぶ配線用のケーブルが必要になるため、作業の邪魔になるという問題もあった。

【０００４】本発明は上記した従来の問題に鑑みなされたものであり、その第１の目的は新たな設置場所を不要としたものである。第２の目的は製造コストの低減を図ることにある。第３の目的は作業性の向上を図ることにある。

【０００５】

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【課題を解決するための手段】この目的を達成するために、請求項１に係る発明は、シート状物を給紙する給紙部と、この給紙部から給紙された前記シート状物に印刷する印刷部と、この印刷部で印刷された前記シート状物を排紙する排紙部とを備えた枚葉輪転印刷機において、前記シート状物に印刷されるインキの量を調整するインキ量調整装置を前記排紙部の上に設けたものである。したがって、インキ量調整装置を印刷機本体と別体に設ける必要がない。また、印刷されたシート状物を抜き取る作業を、インキ量の調整作業位置と同位置で行うことができる。また、請求項２に係る発明は、請求項１に係る発明において、前記インキ量調整装置に、印刷されたシート状物用の載置部を設けたものである。したがって、抜き取ったシート状物を刷見本と比較するのに、載置部に載置して行う。

【０００６】

【発明の実施の形態】以下、本発明の実施の形態を図に基づいて説明する。図１は本発明に係る枚葉輪転印刷機の全体を示す側面図、図２は同じく要部を示す側面図、図３は同じく操作パネルの平面図である。図１において、全体を符号１で示す枚葉輪転印刷機は、紙積台１０に積載されたシート状物としての紙１１を給紙する給紙装置２と、紙１１に印刷する２色の印刷ユニット３Ａ，３Ｂと、排紙装置４とから概略構成されている。

【０００７】給紙装置２において、紙積台１０に積載された紙１１は、図示を省略したサッカ装置で１枚ずつ吸引されて差板１２上に送り出されたのち、図示を省略したスイング装置で１色目の印刷ユニット３Ａの図示を省略した圧胴の爪にくわえ替えられ１色目の印刷が行われる。このあと、図示を省略した渡し胴を介して、２色目の印刷ユニット３Ｂの図示を省略した圧胴の爪にくわえ替えられ、２色目の印刷が行われる。

【０００８】図２において、排紙装置４における左右の排紙フレーム１３の前端側には、左右一対のスプロケット１４（一方のスプロケット１４は図示を省略）がそれぞれ設けられ、左右の排紙フレーム１３の後端側には、左右一対のスプロケット（図示せず）が設けられている。これら前後のスプロケット間には、左右一対の排紙チェーン１５（一方の排紙チェーン１５は図示せず）が張架され、これら左右一対の排紙チェーン１５間には、複数組の図示を省略した爪竿が一定間隔で支架されており、この爪竿には図示を省略した紙くわえ装置が設けられている。

【０００９】したがって、２色目の印刷ユニット３Ｂで印刷された紙は、紙くわえ装置にくわえ替えられ、排紙チェーン１５によって搬送され、カム機構によって紙くわえ装置のくわえから開放されて搬送終端部下方に設けられた紙積台１６上に落下して積載される。この紙積台１６上に積載される印刷された紙１１は、作業者３０によって図中矢印Ａ方向、すなわち前方側に抜き取ること

ができるように構成されている。図１において、１７はステップであって、版替え時やインキ装置等の保守点検時における作業者の足場となるものである。以上説明した枚葉輪転印刷機の各部の構成は、従来から広く知られている枚葉輪転印刷機と格別変わるところはない。

【００１０】本発明の特徴とするところは、排紙装置４の上部に、紙１１に印刷されるインキの量等を調整する印刷品質制御装置２０を設けた点にある。すなわち、図２に示すように、印刷品質制御装置２０は、排紙フレーム１３の上部に固定した側面視略三角形で上部が開放されたケース２１と、このケース２１の上部の開口を覆う操作パネル２２と、ケース２１内に実装された制御部（図示せず）とによって構成されている。

【００１１】このケース２１内に実装された制御部は、後述するディスプレイ２５のタッチパネルや操作部２６の押釦の操作によって、枚葉輪転印刷機１内のインキ装置、給水装置、見当装置を制御する。ケース２１の両側部の上端は、前方側から後方側が高くなるように傾斜するように形成され、ケース２１を覆う操作パネル２２も、前方側から後方側が高くなるように傾斜するように位置付けられている。

【００１２】２３は伸縮自在な左右一対のスタッド（一方のスタッド２３は図示せず）であって、下端がケース２１の底部２４に枢着され、上端が操作パネル２２の底面部に枢着されており、操作パネル２２はこのスタッド２３を介してケース２１の上部の開口を開放および閉塞自在となるように回動自在に支持されている。

【００１３】図３において、操作パネル２２には、インキ装置を操作するタッチパネル式のディスプレイ２５と、インキ装置、給水装置、見当装置等を操作する押釦類を備えた操作部２６，２６が組み込まれている。また、これらディスプレイ２５と操作部２６，２６とを除く部位には、枚葉輪転印刷機１で印刷された紙１１を載置する載置部としての刷見台２７が一体に形成され、この刷見台２７の下端には、印刷された紙１１が滑り落ちるのを規制するバー２８が設けられている。

【００１４】次に、このように構成された枚葉輪転印刷機におけるインキ装置、給水装置、見当装置の制御の動作を説明する。枚葉輪転印刷機１による試刷りを開始したら、図２に示すように、作業者３０は操作パネル２２上に手が届くように、排紙装置４の前方に近接して立つ。所定枚数印刷毎に本刷見本としての印刷された紙１１を排紙装置４から抜き取って操作パネル２２の刷見台２７上に載置する。

【００１５】図示を省略した刷見本と印刷された紙１１とを目視によって比較し、差異のあるときには、ディスプレイ２５のタッチパネルや操作部２６の押釦を操作してインキ出し量を調節したり、給水量や天地左右の見当合わせを行う。

【００１６】このとき、操作パネル２２が排紙装置４の上部側に設けられていることにより、作業者３０が場所を移動することなく、排紙装置４から印刷された紙１１を抜き取ることができるので、抜き取り作業が短時間で容易に行うことができ、従来のように作業者が移動する必要がないので、作業性が向上する。

【００１７】また、操作パネル２２を前方から後方に向かって高くなるように傾斜させたことにより、作業者３０は排紙装置４の前方側に位置して作業することができる。排紙装置４の前方側には、枚葉輪転印刷機１を構成する部材が存在しない、空き空間になっているばかりか、排紙装置４から印刷された紙１１を抜き取るための場所である前方側にあらかじめ作業者３０が位置していることにより、作業を円滑に行うことができる。

【００１８】さらに、印刷品質制御装置２０をケース２１を介して排紙装置４に一体的に設けたことにより、従来のように印刷品質制御装置２０の設置場所を新たに必要としないとともに、製造コストの低減が図られ、かつ作業の邪魔となる印刷機１と印刷品質制御装置２０との間を結ぶ配線用のケーブルが不要になる。

【００１９】また、抜き取った印刷された紙１１を載置する刷見台２７を操作パネル２２上に設けたことにより、印刷された紙１１を手で把持する必要がないので、操作性が向上する。

【００２０】ここで、ケース２１内の制御部の保守点検の必要が生じた場合には、図２に二点鎖線で示すように、操作パネル２２を図中時計方向に回動させることにより、ケース２１の上部の開口を開放させて行うことができるので、保守点検を容易に行うことができる。

【００２１】なお、本実施の形態においては、操作パネル２２を操作することにより、インキ装置のみならず、給水装置や見当装置も制御できるようしたが、インキ装置のインキの送り出し量のみを調整できるようにしてもよい。また、ステップ１７等が作業の邪魔にならないのであれば、操作パネル２２を排紙装置４の一方の側方から他方の側方に傾斜させ、作業者３０が排紙装置４の側方において作業できるようにしてもよい。また、本実施の形態においては、シート状物として紙１１を用いたが、塩化ビニールシート等でもよく種々のシート状物に適用できる。

【００２２】

【発明の効果】以上説明したように、請求項１に係る発明によれば、インキを調整する操作装置の設置場所が不要になるとともに、製造コストの低減を図ることができる。また、従来のように作業者が印刷機の排紙装置と制御台との間を行き来きする必要がないので、作業性が向上する。

【００２３】また、請求項２に係る発明によれば、操作性が向上する。

【図面の簡単な説明】

【図１】　本発明に係る枚葉輪転印刷機の全体を示す側

面図である。

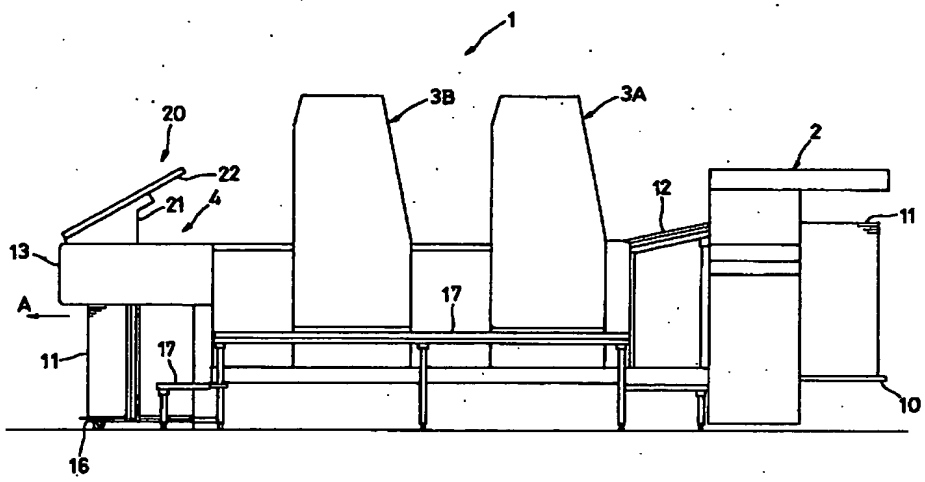
【図２】　本発明に係る枚葉輪転印刷機の要部を示す側面図である。

【図３】　本発明に係る枚葉輪転印刷機の操作パネルの平面図である。

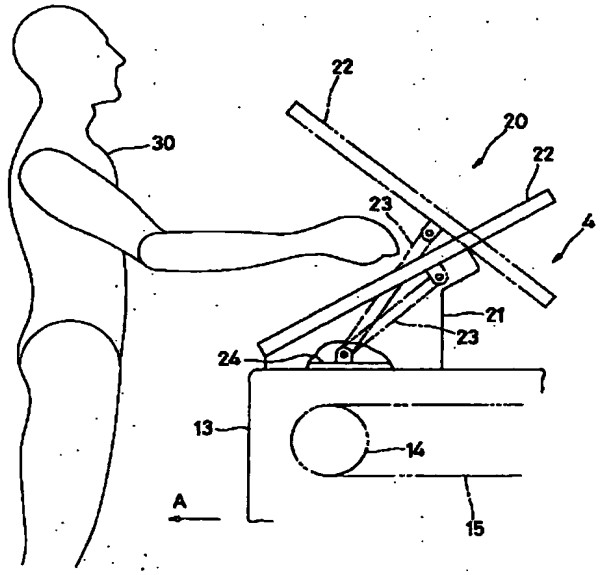
【符号の説明】

１…枚葉輪転印刷機、２…給紙装置、３Ａ，３Ｂ…印刷ユニット、４…排紙装置、１１…紙、１３…排紙フレーム、２０…印刷品質制御装置、２２…操作パネル、２５…ディスプレイ、２６…操作部、２７…刷見台、３０…作業者。

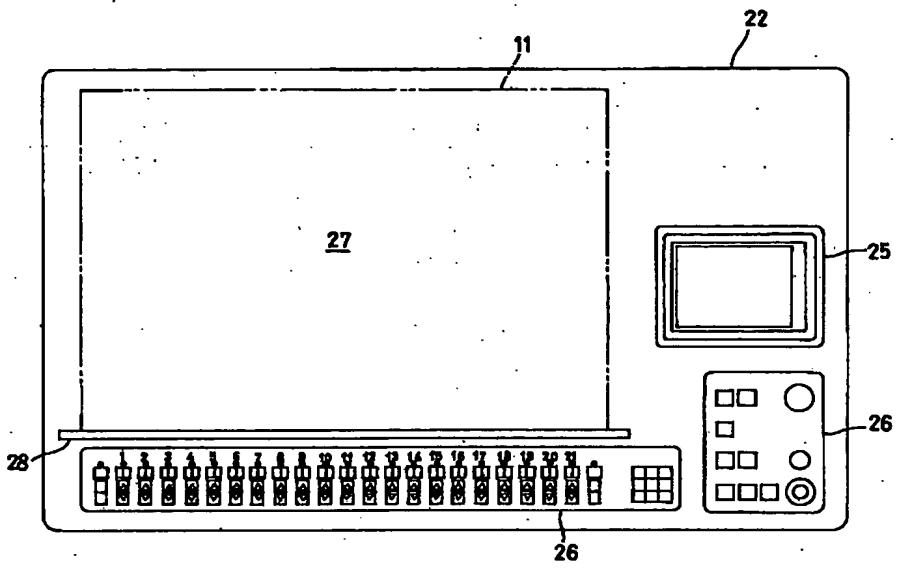
【図１】



【図２】



【図３】



PATENT ABSTRACTS OF JAPAN

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(22)Date of filing : 16.09.1999

(71)Applicant : KOMORI CORP
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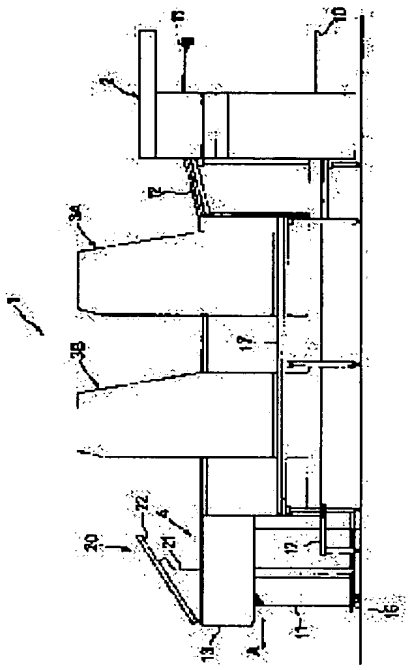
(54) SHEET ROTARY PRESS

(57)Abstract:
PROBLEM TO BE SOLVED: To dispense with a place for installing an operating device by providing an ink volume adjusting device on a sheet delivery part.
SOLUTION: A print quality control device 20 for adjusting an ink supply to be used for printing sheets 11 is provided at the upper part of a sheet delivery device 4. This control device 20 is structured of a case 21 which is fixed to the upper part of a sheet delivery frame 13 and is of an almost triangular shape as viewed laterally with an open top, an operating panel 22 covering this upper opening, a control part internally mounted in the case 21 and the like. During trial printing, printed sheets 11 are extracted from the sheet delivery device 4 as samples for regular printing each time the specified number of sheets is printed and the extracted sheets are disposed on a print checking table. The trial print sample and the regular print sample are visually compared. When any difference between these samples is recognized, the adjustment of an ink furnished volume, water supply and the registration of the positions at the top and the bottom and to the right and the left of the rotary press are performed by operating the touch panel of a display and the push buttons of an operating part. In this case, as the operating panel 22 is mounted above the sheet delivery device 4, an operator need not move to reach the operating panel 22.



LEGAL STATUS

[Date of request for examination]

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[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

* NOTICES *

CLAIMS

[Claim(s)]
[Claim 1] The sheet rotary press characterized by to form the amount adjusting device of ink which adjusts an amount of ink printed by said sheet-like object in a sheet rotary press equipped with the feed section which feeds paper to a sheet-like object, the printing section printed in said sheet-like object to which paper was fed from this feed section, and a delivery unit which delivers paper to said sheet-like object printed in this printing section in said delivery unit upside.
[Claim 2] A sheet rotary press characterized by preparing the installation section for sheet-like objects printed by said amount adjusting device of ink in a sheet rotary press according to claim 1.

[Translation done.]

* NOTICES *

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[The technical field to which invention belongs] This invention relates to the sheet rotary press equipped with the amount adjusting device of ink which adjusts the amount of the ink of the printing section, comparing the paper and ****** which were printed.
[0002]
[Description of the Prior Art] Generally, in this kind of sheet rotary press, trial printing which adjusts ink ****** of each color etc. based on ****** in advance of this printing is performed. There are some which were indicated by JP,1-36611,Y as a sheet rotary press equipped with the amount adjusting device of ink which adjusts such ink ******. After comparing ****** with the printed paper, the ink blade divided for every section is moved to the sheet rotary press indicated here by remote operation, and it is equipped with the control base which adjusts ink ******. That is, the display which displays ink ****** in the ink equipment of a printing machine for every section, and the control unit equipped with the push buttons which operate ink equipment etc. are prepared in the upper surface of this control base. And the printed paper which was printed was sampled from the delivery unit for every predetermined number of sheets, the push button of the control unit of a control base was operated, comparing this with ******, and ink ****** was adjusted.
[0003]
[Problem(s) to be Solved by the Invention] However, in the conventional sheet rotary press mentioned above, since the control base has structure prepared independently in another object with the main part of a printing machine, both manufacturing costs also increase as if the location in which a control base is installed is newly needed. Moreover, since the control base has estranged with the main part of a printing machine, an operator has to go back and forth between the delivery equipment of a printing machine, and control bases, and workability is bad. Moreover, since the cable for wiring to which between the main part of a printing machine and control bases is connected was needed, there was also a problem of becoming the obstacle of an activity.
[0004] This invention is made in view of the above-mentioned conventional problem, and the 1st purpose makes a new installation unnecessary. The 2nd purpose is shown in aiming at reduction of a manufacturing cost. The 3rd purpose is shown in aiming at improvement in workability.
[0005]
[Means for Solving the Problem] Invention which relates to claim 1 in order to attain this purpose forms the amount adjusting device of ink which adjusts the amount of the ink printed by said sheet-like object on said delivery unit in the sheet rotary press equipped with the feed section which feeds paper to a sheet-like object, the printing section printed in said sheet-like object to which paper was fed from this feed section, and a delivery unit which delivers paper to said sheet-like object printed in this printing section. Therefore, it is not necessary to form the amount adjusting device of ink in a main part of a printing machine, and another object. Moreover, an activity which samples a printed sheet-like object can be done in a tuning location and homotopic of the amount of ink. Moreover, invention concerning claim 2 prepares the installation section for sheet-like objects printed by said amount adjusting device of ink in invention concerning claim 1. Therefore, although compared with ******, a sampled sheet-like object is laid in the installation section, and is performed.
[0006]
[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained based on drawing. Similarly the side elevation showing the whole sheet rotary press which drawing 1 requires for this invention, the side elevation in which drawing 2 is the same and showing an important section, and drawing 3 are the plans of a control panel. In drawing 1 , the outline configuration of the sheet rotary press in which the whole is shown with a sign 1 is carried out from the feed equipment 2 which feeds paper to the paper 11 as a sheet-like object loaded into ****** 10, the printing units 3A and 3B of two colors printed on paper 11, and delivery equipment 4.
[0007] In feed equipment 2, after one sheet of paper 11 loaded into ****** 10 is attracted at a time with the soccer equipment which omitted illustration and being sent out on **** 12, it is again added to the pawl of the impression cylinder which omitted illustration of printing unit 3A of one amorous glance with the swing equipment which omitted illustration, and printing of one amorous glance is performed. Then, it is again added to the pawl of the impression cylinder which omitted illustration of printing unit 3B of two amorous glance through the delivery drum which omitted illustration, and printing of two amorous glance is performed.
[0008] In drawing 2 , the sprocket 14 (one sprocket 14 omits illustration) of a left Uichi pair is formed, respectively,

and the sprocket (not shown) of a left Uichi pair is prepared in the back end side of the delivery frame 13 on either side at the front end side of the delivery frame 13 of the right and left in delivery equipment 4. Between the sprockets of these order, the delivery chain 15 (not shown [one delivery chain 15]) of a left Uichi pair is laid, between the delivery chains 15 of these left Uichi pair, **** which omitted two or more sets of illustration is **** (ed) at the fixed gap, and paper hoe ****** which omitted illustration is prepared at this ****.

[0009] therefore, the paper printed by printing unit 3B of two amorous glance is fallen and loaded on ****** 16 which was wide opened since it was again added to paper hoe ******, and it was conveyed with the delivery chain 15 and paper hoe ****** added by the cam mechanism, and was prepared in the conveyance trailer lower part. The printed paper 11 which is loaded on this ****** 16 is constituted so that it can sample to a direction [of drawing Nakaya mark A], i.e., the front, side by the operator 30. In drawing 1 , 17 is a step and becomes the scaffold of the operator at the time of maintenance check of the time of a version substitute, ink equipment, etc. There is no place where the configuration of each part of the sheet rotary press explained above changes exceptionally with the sheet rotary press known widely from the former.

[0010] The place by which it is characterized [of this invention] is in the point of having formed the printing quality control unit 20 which adjusts the amount of the ink printed by paper 11 etc. in the upper part of delivery equipment 4. That is, as shown in drawing 2 , the printing quality control unit 20 is constituted from a side view abbreviation triangle fixed to the upper part of the delivery frame 13 by the wrap control panel 22 and the control section (not shown) mounted in the case 21 in the opening of the upper part of the case 21 where the upper part was opened wide, and this case 21.

[0011] The control section mounted in this case 21 controls the ink equipment in the sheet rotary press 1, a water service installation, and aim equipment by actuation of the touch panel of a display 25, or the push button of a control unit 26 mentioned later. The upper limit of the both-sides section of a case 21 is formed so that a back side may become high and it may incline from a front side, and the case 21 is positioned so that a front side to a back side may become high and the wrap control panel 22 may also incline.

[0012] 23 is the elastic stud (one stud 23 is not shown) of a left Uichi pair, and a lower limit is pivoted in the pars basilaris ossis occipitalis 24 of a case 21, upper limit is pivoted in the base section of a control panel 22, and the control panel 22 is supported free [rotation] so that disconnection and lock out of the opening of the upper part of a case 21 may be attained through this stud 23.

[0013] In drawing 3 , the control units 26 and 26 equipped with the push buttons which operate the touch-sensitive display 25 which operates ink equipment, ink equipment and a water service installation, aim equipment, etc. are included in the control panel 22. Moreover, ****** 27 as the installation section which lays the paper 11 printed with the sheet rotary press 1 in the part except these displays 25 and control units 26 and 26 is formed in one, and the bar 28 which regulates that the printed paper 11 slides down is formed in the lower limit of this ****** 27.

[0014] Next, actuation of control of the ink equipment in the sheet rotary press constituted in this way, a water service installation, and aim equipment is explained. If the trial printing by the sheet rotary press 1 is started, as shown in drawing 2 , it will approach ahead of delivery equipment 4, and an operator 30 will be formed so that a hand may arrive on a control panel 22. The paper 11 printed as a **** sample for every predetermined number-of-sheets printing is sampled from delivery equipment 4, and is laid on ****** 27 of a control panel 22.

[0015] When viewing compares ****** which omitted illustration, and the printed paper 11 and it is different, the touch panel of a display 25 and the push button of a control unit 26 are operated, ink ****** is adjusted or water supply amounts and aim doubling of top-and-bottom right and left are performed.

[0016] Since the paper 11 printed from delivery equipment 4 can be sampled without an operator 30 moving a location by forming the control panel 22 in the upper part side of delivery equipment 4 at this time, a sampling activity can carry out easily in a short time, and since an operator does not need to move like before, workability improves.

[0017] Moreover, an operator 30 can work by having made the control panel 22 incline from the front, so that it may become high toward back, being located in the front side of delivery equipment 4. When the operator 30 is beforehand located in the front side which is a location for sampling the paper 11 printed from about [that it is empty space] and the delivery equipment 4 with which the member which constitutes the sheet rotary press 1 does not exist in the front side of delivery equipment 4, it can work smoothly.

[0018] Furthermore, while newly not needing the installation of the printing quality control unit 20 like before by having formed the printing quality control unit 20 in delivery equipment 4 in one through the case 21, reduction of a manufacturing cost is achieved and the cable for wiring to which between the printing machines 1 and the printing quality control units 20 of an activity which become obstructive is connected becomes unnecessary.

[0019] Moreover, since it is not necessary to grasp the paper 11 printed by having formed ****** 27 which lays the sampled paper 11 which was printed on the control panel 22 by hand, operability improves.

[0020] Since it can carry out by making the opening of the upper part of a case 21 open wide here by making drawing 2 rotate a control panel 22 to the clockwise rotation in drawing as a two-dot chain line shows when the necessity for maintenance check of the control section within a case 21 arises, maintenance check can be performed easily.

[0021] In addition, although carried out as [control / by operating a control panel 22 / not only ink equipment but a water service installation or aim equipment], you may enable it to adjust only the amount of sends of the ink of ink equipment in the gestalt of this operation. Moreover, if step 17 grade does not become the obstacle of an activity, a control panel 22 is made to incline in the side of another side from one side of delivery equipment 4, and an operator

60 may enable it to work in the side of delivery equipment 4. Moreover, in the gestalt of this operation, although paper 11 was used as a sheet-like object, chlorination plastic sheeting etc. is sufficient and it can apply to various sheet-like objects.

[0022]

[Effect of the Invention] As explained above, while the installation of an operating set which adjusts ink becomes unnecessary according to invention concerning claim 1, reduction of a manufacturing cost can be aimed at. Moreover, since an operator does not need to go and does not need to come and attribute between the delivery equipment of a printing machine, and control bases like before, workability improves.

[0023] Moreover, according to invention concerning claim 2, operability improves.

[Translation done.]

* NOTICES *

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TECHNICAL FIELD

[The technical field to which invention belongs] This invention relates to the sheet rotary press equipped with the amount adjusting device of ink which adjusts the amount of the ink of the printing section, comparing the paper and ****** which were printed.

[Translation done.]

* NOTICES *

PRIOR ART

[Description of the Prior Art] Generally, in this kind of sheet rotary press, trial printing which adjusts ink ****** of each color etc. based on ****** in advance of this printing is performed. There are some which were indicated by JP,1-36611,Y as a sheet rotary press equipped with the amount adjusting device of ink which adjusts such ink ******. After comparing ****** with the printed paper, the ink blade divided for every section is moved to the sheet rotary press indicated here by remote operation, and it is equipped with the control base which adjusts ink ******. That is, the display which displays ink ****** in the ink equipment of a printing machine for every section, and the control unit equipped with the push buttons which operate ink equipment etc. are prepared in the upper surface of this control base. And the printed paper which was printed was sampled from the delivery unit for every predetermined number of sheets, the push button of the control unit of a control base was operated, comparing this with ******, and ink ****** was adjusted.

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EFFECT OF THE INVENTION

[Effect of the Invention] As explained above, while the installation of the manual operating device which adjusts ink becomes unnecessary according to invention concerning claim 1, reduction of a manufacturing cost can be aimed at. Moreover, since an operator does not need to go and does not need to come and attribute between the delivery equipment of a printing machine, and control bases like before, workability improves.
[0023] Moreover, according to invention concerning claim 2, operability improves.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] However, in the conventional sheet rotary press mentioned above, since the control base has structure independently prepared in another object with the main part of a printing machine, both manufacturing costs also increase as if the location in which a control base is installed is newly needed. Moreover, since the control base has estranged with the main part of a printing machine, an operator has to go back and forth between the delivery equipment of a printing machine, and control bases, and workability is bad. Moreover, since the cable for wiring to which between the main part of a printing machine and control bases is connected was needed, there was also a problem of becoming the obstacle of an activity.
[0004] This invention is made in view of the above-mentioned conventional problem, and the 1st object makes a new installation unnecessary. The 2nd object is shown in aiming at reduction of a manufacturing cost. The 3rd object is shown in aiming at improvement in workability.
[0005]

[Translation done.]

* NOTICES *

MEANS

[Means for Solving the Problem] Invention which relates to claim 1 in order to attain this object forms the amount adjusting device of ink which adjusts the amount of the ink printed by said sheet-like object on said delivery unit in the sheet rotary press equipped with the feed section which feeds paper to a sheet-like object, the printing section printed in said sheet-like object to which paper was fed from this feed section, and the delivery unit which delivers paper to said sheet-like object printed in this printing section. Therefore, it is not necessary to form the amount adjusting device of ink in a main part of a printing machine, and another object. Moreover, an activity which samples a printed sheet-like object can be done in a tuning location and homotopic of the amount of ink. Moreover, invention concerning claim 2 prepares the installation section for sheet-like objects printed by said amount adjusting device of ink in invention concerning claim 1. Therefore, although compared with ******, a sampled sheet-like object is laid in the installation section, and is performed.
[0006]
[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained based on drawing. Similarly the side elevation showing the whole sheet rotary press which drawing 1 requires for this invention, the side elevation in which drawing 2 is the same and showing an important section, and drawing 3 are the plans of a control panel. In drawing 1 , the outline configuration of the sheet rotary press in which the whole is shown with a sign 1 is carried out from the feed equipment 2 which feeds paper to the paper 11 as a sheet-like object loaded into ****** 10, the printing units 3A and 3B of two colors printed on paper 11, and delivery equipment 4.
[0007] In feed equipment 2, after one sheet of paper 11 loaded into ****** 10 is attracted at a time with the soccer equipment which omitted the graphic display and being sent out on **** 12, it is again added to the pawl of the impression cylinder which omitted the graphic display of printing unit 3A of one amorous glance with the swing equipment which omitted the graphic display, and printing of one amorous glance is performed. Then, it is again added to the pawl of the impression cylinder which omitted the graphic display of printing unit 3B of two amorous glance through the delivery drum which omitted the graphic display, and printing of two amorous glance is performed.

[0008] In drawing 2 , the sprocket 14 (one sprocket 14 omits a graphic display) of a left Uichi pair is formed, respectively, and the sprocket (not shown) of a left Uichi pair is prepared in the back end side of the delivery frame 13 on either side at the front end side of the delivery frame 13 of the right and left in delivery equipment 4. Between the sprockets of these order, the delivery chain 15 (not shown [one delivery chain 15]) of a left Uichi pair is laid, between the delivery chains 15 of these left Uichi pair, **** which omitted two or more sets of graphic displays is ****(ed) at the fixed gap, and paper hoe ****** which omitted the graphic display is prepared at this ****.
[0009] therefore, the paper printed by printing unit 3B of two amorous glance is fallen and loaded on ****** 16 which was opened since it was again added to paper hoe ******, and it was conveyed with the delivery chain 15 and paper hoe ****** added according to the cam mechanism, and was prepared in the conveyance trailer lower part. The printed paper 11 which is loaded on this ****** 16 is constituted so that it can sample to a direction [of drawing Nakaya mark A], i.e., the front, side by the operator 30. In drawing 1 , 17 is a step and becomes the footing of the operator at the time of maintenance inspection of the time of a version substitute, ink equipment, etc. There is no place where the configuration of each part of the sheet rotary press explained above changes exceptionally with the sheet rotary press known widely from the former.
[0010] The place by which it is characterized [of this invention] is in the point of having formed the printing quality control unit 20 which adjusts the amount of the ink printed by paper 11 etc. in the upper part of delivery equipment 4. That is, as shown in drawing 2 , the printing quality control unit 20 is constituted from a side view abbreviation triangle fixed to the upper part of the delivery frame 13 by the wrap control panel 22 and the control section (not shown) mounted in the case 21 in the opening of the upper part of the case 21 where the upper part was opened, and this case 21.
[0011] The control section mounted in this case 21 controls the ink equipment in the sheet rotary press 1, water supply equipment, and aim equipment by actuation of the touch panel of a display 25, or the push button of a control unit 26 mentioned later. The upper bed of the both-sides section of a case 21 is formed so that a back side may become high and it may incline from a front side, and the case 21 is positioned so that a front side to a back side may become high and the wrap control panel 22 may also incline.
[0012] 23 is the elastic stud (one stud 23 is not shown) of a left Uichi pair, and a soffit is pivoted in the pars basilaris ossis occipitalis 24 of a case 21, the upper bed is pivoted in the base section of a control panel 22, and the control panel 22 is supported free [rotation] so that disconnection and lock out of the opening of the upper part of

a case 21 may be attained through this stud 23.
[0013] In drawing 3 , the control units 26 and 26 equipped with the push buttons which operate the touch-sensitive display 25 which operates ink equipment, ink equipment and water supply equipment, aim equipment, etc. are included in the control panel 22. Moreover, ****** 27 as the installation section which lays the paper 11 printed with the sheet rotary press 1 in the part except these displays 25 and control units 26 and 26 is formed in one, and the bar 28 which regulates that the printed paper 11 slides down is formed in the soffit of this ****** 27.
[0014] Next, actuation of control of the ink equipment in the sheet rotary press constituted in this way, water supply equipment, and aim equipment is explained. If the trial printing by the sheet rotary press 1 is started, as shown in drawing 2 , it will approach ahead of delivery equipment 4, and an operator 30 will be formed so that a hand may arrive on a control panel 22. The paper 11 printed as a **** sample for every predetermined number-of-sheets printing is sampled from delivery equipment 4, and is laid on ****** 27 of a control panel 22.
[0015] When viewing compares ****** which omitted the graphic display, and the printed paper 11 and it is different, the touch panel of a display 25 and the push button of a control unit 26 are operated, ink ****** is adjusted or water supply amounts and aim doubling of top-and-bottom right and left are performed.
[0016] Since the paper 11 printed from delivery equipment 4 can be sampled without an operator 30 moving a location by forming the control panel 22 in the upper part side of delivery equipment 4 at this time, a sampling activity can carry out easily in a short time, and since an operator does not need to move like before, workability improves.
[0017] Moreover, an operator 30 can work by having made the control panel 22 incline from the front, so that it may become high toward back, being located in the front side of delivery equipment 4. When the operator 30 is beforehand located in the front side which is a location for sampling the paper 11 printed from about [that it is empty space] and the delivery equipment 4 with which the member which constitutes the sheet rotary press 1 does not exist in the front side of delivery equipment 4, it can work smoothly.
[0018] Furthermore, while newly not needing the installation of the printing quality control unit 20 like before by having formed the printing quality control unit 20 in delivery equipment 4 in one through the case 21, reduction of a manufacturing cost is achieved and the cable for wiring to which between the printing machines 1 and the printing quality control units 20 of an activity which become obstructive is connected becomes unnecessary.
[0019] Moreover, since it is not necessary to grasp the paper 11 printed by having formed ****** 27 which lays the sampled paper 11 which was printed on the control panel 22 by hand, operability improves.
[0020] Since it can carry out by making the opening of the upper part of a case 21 open here by making drawing 2 rotate a control panel 22 to the clockwise rotation in drawing as a two-dot chain line shows when the need for maintenance inspection of the control section within a case 21 arises, maintenance inspection can be performed easily.
[0021] In addition, although carried out as [control / by operating a control panel 22 / not only ink equipment but water supply equipment or aim equipment], you may enable it to adjust only the amount of sends of the ink of ink equipment in the gestalt of this operation. Moreover, if step 17 grade does not become the obstacle of an activity, a control panel 22 is made to incline in the side of another side from one side of delivery equipment 4, and an operator 30 may enable it to work in the side of delivery equipment 4. Moreover, in the gestalt of this operation, although paper 11 was used as a sheet-like object, chlorination plastic sheeting etc. is sufficient and it can apply to various sheet-like objects.

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DESCRIPTION OF DRAWINGS

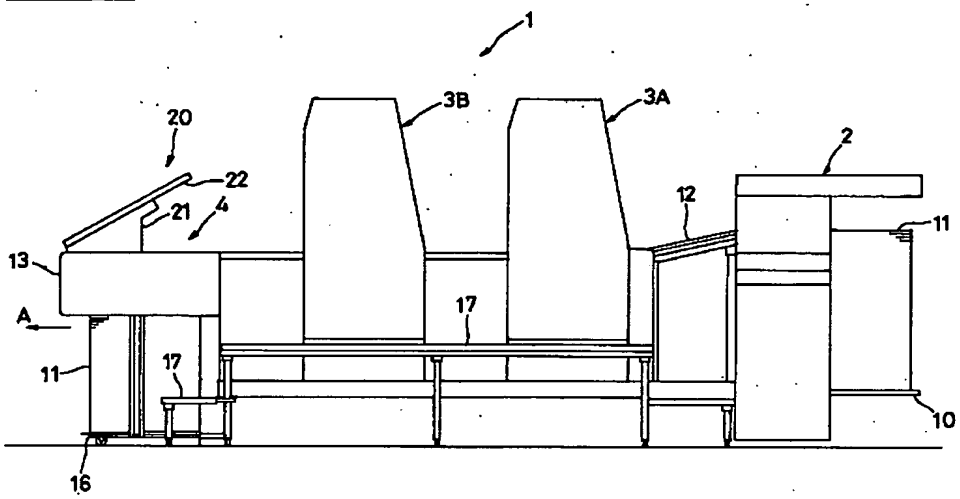
[Brief Description of the Drawings]
[Drawing 1] It is the side elevation showing the whole sheet rotary press concerning this invention.
[Drawing 2] It is the side elevation showing the important section of the sheet rotary press concerning this invention.
[Drawing 3] It is the plan of the control panel of the sheet rotary press concerning this invention.
[Description of Notations]
1 [— Delivery equipment, 11 / — Paper, 13 / — A delivery frame, 20 / — A printing quality control unit, 22 / — A control panel, 25 / — A display, 26 / — A control unit, 27 / — ******, 30 / — Operator.] — A sheet rotary press, 2 — Feed equipment, 3A, 3B — A printing unit, 4

[Translation done.]

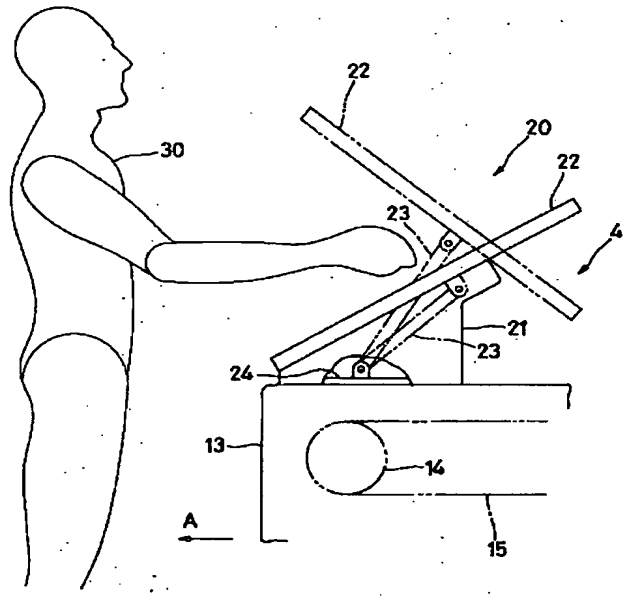
* NOTICES *

DRAWINGS

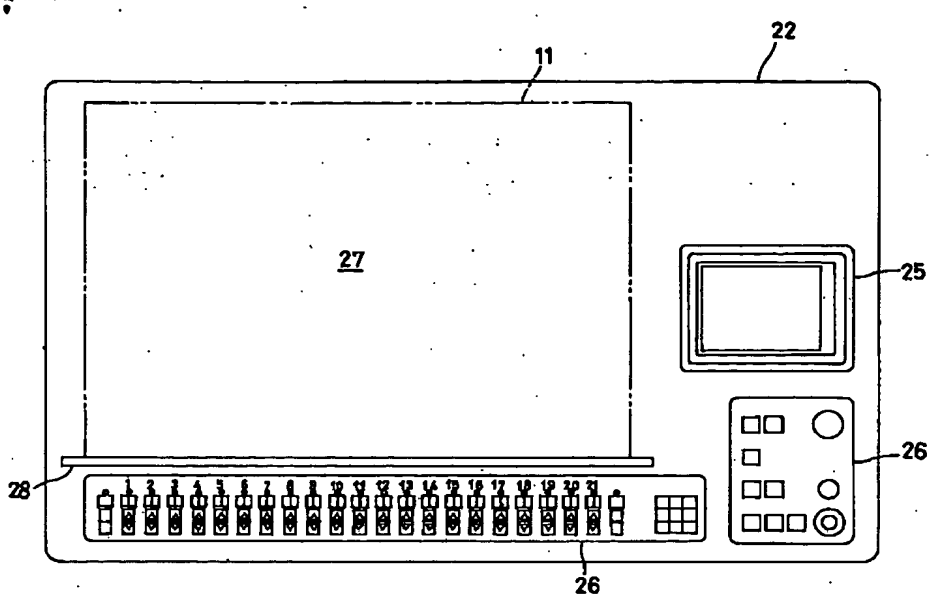
[Drawing 1]



[Drawing 2]



[Drawing 3]



[Translation done.]